

# THE VALUE OF PHP (Personal Hygiene Performance) INDEX TOWARD THE VALUE OF DMF-T IN PATIENTS WITH DOWN SYNDROME

## ABSTRACT

**Background.** The development of caries involves interconnected factors such as microorganisms, teeth, carbohydrates in the diet, and time. Delays in motoric development of patients with down syndrome cause difficulty in maintaining oral hygiene that found poor oral hygiene. Saliva has an important role in preventing caries with mechanical cleaning of the oral cavity. The low value of DMF-T in patients with down syndrome caused by high salivary buffer, high salivary pH, decreased the amount of Streptococcus mutans, the high concentration of salivary electrolytes, and an increase in inorganic ions. **Purpose.** The purpose of this study was to determine correlation between the value of PHP (Personal Hygiene Performance) index with the value of DMF-T in patients with down syndrome. **Method.** This study was an observational analytic study with samples of 34 children with down syndrome aged 6-12 years. The research was conducted by measuring the value of PHP (Personal Hygiene Performance) index and the value of DMF-T in patients with down syndrome. **Result.** In this research using spearman's rho correlation test, p value 0.000 and the correlation value (r) 0.776 which means there is a significant correlation. **Conclusion.** There is the significant correlation between the value of PHP (Personal Hygiene Performance) index with the value of DMF-T in patients with down syndrome.

**Keywords:** Down syndrome, value of PHP, value of DMF-T, salivary pH

## NILAI PHP (*Personal Hygiene Performance*) INDEKS TERHADAP NILAI DMF-T PADA PENDERITA *DOWN SYNDROME*

### ABSTRAK

**Latar Belakang.** Perkembangan karies melibatkan faktor yang saling berhubungan seperti mikroorganisme, gigi, karbohidrat dalam diet, dan waktu. Keterlambatan perkembangan motorik mengakibatkan penderita *down syndrome* kesulitan dalam menjaga kebersihan gigi dan mulut sehingga ditemukan *oral hygiene* yang buruk. Saliva mempunyai peran penting dalam mencegah timbulnya karies dengan membersihkan secara mekanik rongga mulut sehingga mengurangi akumulasi plak. Rendahnya nilai DMF-T pada penderita *down syndrome* disebabkan *buffer* saliva yang tinggi, pH saliva yang tinggi, penurunan jumlah *Streptococcus mutans*, tingginya konsentrasi elektrolit saliva, dan peningkatan ion inorganik. **Tujuan.** Tujuan dari penelitian ini adalah mengetahui hubungan nilai PHP (*Personal Hygiene Performance*) indeks dengan nilai DMF-T pada penderita *down syndrome*. **Metode.** Penelitian ini merupakan penelitian observasional analitik dengan sampel sebanyak 34 anak *down syndrome* usia 6-12 tahun. Penelitian dilakukan dengan mengukur nilai PHP (*Personal Hygiene Performance*) Indeks dan nilai DMF-T pada penderita *down syndrome*. **Hasil.** Pada penelitian ini menggunakan uji *spearman's rho correlation* didapatkan nilai *p* sebesar 0,000 dan nilai korelasi (*r*) sebesar 0,776 yang berarti ada hubungan signifikan. **Simpulan.** Terdapat hubungan signifikan yang searah antara nilai PHP (*Personal Hygiene Performance*) indeks dengan nilai DMF-T pada penderita *down syndrome*.

**Kata Kunci:** *Down syndrome*, nilai PHP, nilai DMF-T, pH saliva